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Alain Benayoun

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IBM CORPORATION

PO BOX 12195

DEPT YXSA, BLDG 002

RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

LIU, JONATHAN

ART UNIT

PAPER NUMBER

2616

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Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat No. 6,349,097.)

Regarding claims 1 and 17, Smith teach a data transmission system comprising:

a packet switch (Fig. 1);

a memory block located at each crosspoint of said switch module, said memory block including memory control means for determining from the header of the received data packet whether said packet is to be forwarded to the output port associated with said crosspoint and a data memory unit for storing at least said data packet into said data memory unit before sending it to said output port (the received data is stored in the memory means at each corssconnect switch and including memory control means 146.

Smith also teach determining whether cell is going to be forwarded to output port and whether need to add the routing tag. See col 12, lines 28-55 and Fig. 2. Memory receive control section would couple at least two cross points. See Fig. 1-2), and

said memory control means analyzes when said header includes a specific configuration indicating that said packet is a multicast address packet preceding a multicast frame in order to determine whether the packets of said multicast frame are to

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be forwarded to said output port (Smith teach analyzes the information when the header indicating packet is a multicast address packet preceding a multicast frame in order to forward multicast data frame to output. See Fig. 2 and col 15-16, lines 48-54.)

Smith does not clearly teach analyzing all the bytes following header. However, Smith teach to analyze all the remaining bytes of the cell, which is the payload in order to know the destination information (col 19-20, lines 43-26) Therefore, it would have been obvious to one who has ordinary skill in the art at the time the invention was made to have analyzing all the bytes following header because Smith teach information data stores in the input buffer and analyze the routing destination according to information (col 19-20, lines 43-26.)

Regarding claims 2-10, Smith shows a local scheduler to control information for the feed forward while the destination is found. Smith also teach allocation of multicasting at predetermined time and other requirements, such as QoS (See col 2, lines 18-57 col 3, lines 18-38, and Fig. 2) Smith also teach analyzing the header to see if it is a multicast address packet (See Fig. 4-5, and col 5, lines 59-67, col 9, lines 46-59.) the packet would be stored in the queue and forward to output (Fig. 2, col 11, lines 35-45.) Smith teach output section as output data block as claimed, forward to output under the control of scheduler for validating data after receiving signal from scheduler and operating of storing data in the memory unit(See Fig. 2 and col 11-12, lines 35-55) according to different destination information, each byte of multicast address packet following header would be determined, following the same rational as applied to claim 1. The expansion memory could be consider as buffer or queue (See col 8-9, lines 61-59.)

Regarding claims 18-19, Smith shows at least two adapters operatively coupled to the switch module (Fig. 1) and Smith teach system to implement on the ATM network, which could be a local area network (col 1, lines 13-40.)

3. Claims 11, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat No. 6,349,097.), in view of Loewen et al. (US Pat No. 6,798,744)

Regarding claims 11, 13-14, Smith teach a data transmission system according to any one of claims 1 to 10. Smith do not specifically teach the situation under overflow. However, Loewen et al. teach issuing an overflow signal to scheduler in order to avoid overflow (col 2, lines 11-17, Loewen et al.) Loewen et al. further teach send back-pressure signal to reduce the flow of data packets (See col 14, lines 47-55.) Since Lowen et al. teach the flow control for ATM network (See col 1, lines 27-30, Lowen et al.) and Smith teach multicasting in switching apparatus for ATM network (See col 1, lines 6-10, Smith.); thus, it would have been obvious to one who has ordinary skill in the art at the time the invention was made to have overflow control on Smith's system in view of Loewen et al. because Smith's also try to avoid the overflow by assuming the overflow has been avoided (See col 15-16, lines 56-4, Smith.)

***Allowable Subject Matter***

4. Claims 12, 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Liou whose telephone number is 571-272-8136. The examiner can normally be reached on 8:00AM - 5:00PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jonathan Liou

5/14/2006



RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER